

FRIGATES OF 1812 AND DREADNOUGHTS OF TO-DAY

The Old Navy and the New Compared on Centenary of Old Ironsides' Memorable Escape From Capture—Three Day Struggle, in Which American Seamanship Baffled a British Squadron in War of 1812



TWO weeks from next Wednesday will be celebrated the centennial of the United States frigate Constitution's memorable escape from an overpowering force of British ships. This was the only occasion upon which "Old Ironsides" gave heed to the maxim that "discretion is the better part of valor." At every other opportunity the wonderful old ship never hesitated to try conclusions with the foe, and so often and so hard was she able to strike that she did more than any other vessel of the American navy to humble British pride and to build the foundation of an enduring peace.

Even the escape of the Constitution from the pursuing squadron of English ships was virtually a victory, because American seamanship and courage baffled the enemy. The story of that exploit is of special interest as affording a comparison between the American navy of 100 years ago and now.

On June 19, 1812, the frigate was lying off Alexandria, Va., loading for sea. The crew were piped to quarters and the declaration of war was read to them. The following terse entry in her log is interesting: "The crew manifested their zeal in support of the Honor of the United States Flag by requesting of leave to cheer on the occasion. (Granted them.)" At that time the major part of the crew were merchant seamen, whose fellows had suffered by British impressment and they burned with a desire to avenge those wrongs.

The Constitution was commanded by Capt. Isaac Hull. During the afternoon of July 17, while the frigate was running along under easy sail in a light wind, bound from the Chesapeake to a rendezvous off New York to join Commodore Rodgers's squadron, sails were discovered to the northward in the neighborhood of Barnegat. Believing the vessels to be Rodgers's ships, Capt. Hull made all sail to join the distant vessels, but was unsuccessful before nightfall.

At dawn he realized his error when he found three English frigates within six miles and crowding all sail to overtake him. They were favored by local breezes and aided by their boats which they had put overboard for the purpose of increasing their speed by towing. Those three

the ship further ahead, while a large quantity of water in the main hold was thrown overboard to lighten her. This, with a stiff breeze, enabled Hull to hold his own with his pursuers, while by wetting the sails as high as the pumps could throw more force was lent to the feeble breezes in pushing the ship onward.

The wearying struggle ran on until the late afternoon of July 19, the British sailors being recruited from the ships furthest astern to help draw and warp the nearest of the frigates toward the Constitution, while the men aboard of Old Ironsides had no relief in the unequal task. But the Yankee tars had a cunning skipper and Hull made the most of his opportunity when it came just before 7 o'clock upon that fateful Sunday in the shape of a heavy squall of wind and rain.

where her vessels of war could reef and places of refuge for her prizes. On the other hand the total available naval force of the United States consisted of seventeen cruising vessels, and of this number nine were smaller than frigates.

The character of the guns in the American navy during the war of 1812 is indicated by the weight of the solid shot fired. The batteries of the frigates consisted of 32, 24 and 18 pounders. Elevated a couple of degrees, these weapons could throw their shot something more than a thousand yards, but they were quite incapable of piercing the sides of the ships of the period at that distance.

Despite the fact that the guns were muzzle loaders the American sailor handled them with astonishing speed, and the record of victories tells how accurately they were handled. In order that the guns might do their battering

OUR GREATEST WARSHIP IN 1812 AND NOW COMPARED.

Constitution.	Utah.
Structural material.....Wood	Steel
Length in feet.....175	510
Displacement—tons.....2,200	23,033
Personnel.....460	948
Motive power.....Sail	Steam
Speed—knots.....13.5	21.4
Main battery.....	
22 32 pounders.....10 12 inch rifles	
32 24 pounders.....16 5 inch rapid fire guns	
1 18 pounder	
Weight of a single broadside, in pounds.....684	9,100
Torpedo tubes.....0	2 21 inch
Cost complete.....\$302,719	\$8,500,000
Annual cost of upkeep.....\$193,220	\$682,517.18
Weight of gun—32 pounder.....3,200 lbs.	12 inch, 125,664 lbs.
Weight of projectile.....32 lbs.	870 lbs.
Weight of powder charge.....5 lbs.	450 lbs.
Penetration, 18 ins. wood at 1,000 yds. 15 ins. steel at 10,000 yds.	

frigates were part of the British blockading fleet under Capt. Sir Philip Vere Broke, consisting of one line of battleship, four frigates, one of them the Guerriere, and a brig and a schooner, the two last armed prizes.

Hull was determined not to be taken without a struggle. He ran two of his gun deck guns out of the cabin windows, and added to this force on the poop deck two other guns, a 24 pounder and an 18 pounder, which had ports hastily hewn for them in the taffrail. He hoped to damage the masts of the nearest frigate astern, and some shots were fired for that purpose, but, falling short, the practice ceased.

A Three Days Struggle.

Each hour added to the gravity of the Constitution's position. With their boats towing them the pursuing frigates rapidly drew nearer and it seemed as though Old Ironsides could not escape. To make matters worse there was not the least breeze to help the Constitution.

It was then that Lieut. Morris suggested to Hull that he attempt to warp the ship ahead. Accordingly three or four hundred fathoms of rope was got up from the hold and sent ahead in boats to be dropped overboard at the right distance. On the Constitution the crew hauled lustily at the lines, and as the ropes came aboard the ship forged forward, gaining for a while upon her pursuers, until the cause of her sudden advance was detected by the nearest of the British frigates. Then the boats from the more distant ships were sent to tow and to warp in the same way the nearest English frigates, bringing them up rapidly almost within gunshot. Once more, for three hours, all hands on the Constitution were set at work warping

Before the force of the wind struck his ship Hull took in all the light sails and reefed most of the remaining ones. The British ships astern, watching that manœuvre, believed a heavy blow was sweeping down toward them and promptly followed suit. The Constitution had hardly righted herself from the first onrush of the wind, when Hull, under cover of the mist, shook out his reefs and set every stitch of canvas that his spars could stand. The ship tore her way through the water, and when the view cleared half an hour later most of the pursuing craft were hulled down to the rear. The enemy, however, stuck stubbornly to their work, but abandoned the chase about midforenoon of July 20.

During that contest, running as it did over three days and three nights, Hull outlasted, outthundered, and outwitted his pursuers, and it is easy to understand the pride with which he said of his officers and crew, "Their conduct whilst under the guns of the enemy was such as might have been expected from American officers and seamen." That chase showed the kind of material of which the personnel of the navy at that time was made.

American Navy of 1812.

At the outbreak of the war of 1812 the United States had in commission but five vessels. These were the Constitution, 44 guns; the President, 44; the United States, 44; the Congress, 36; and the Essex, 32 guns. While there were added to this force a number of smaller craft the total American fighting fleet was ridiculously small compared with the resources upon which Great Britain drew.

There were in the British navy at the time between 700 and 800 efficient cruisers, and England possessed in the West Indies, in Bermuda and at Halifax ports within easy reach of the American coast,

work more effectively the commanders in those days, after failing to cut away the spars of the enemy, laid their ships alongside of one another and fired away with muzzles nearly touching muzzles. This gave the opportunity for cutlass and boarding pike.

The gunpowder of those days produced dense clouds of smoke and the ship having the advantage of the weather gauge had her enemy at a disadvantage because of the cover of the intervening haze. To obtain the weather gauge was the aim of the skilful nautical tactician. Everything depended upon the quick eye of the captain and his sailing master and the prompt and efficient response of every man from the deck to the loftiest top. Such were the general outward conditions of service afloat a hundred years ago.

A hundred years ago the sailors slept between decks under hygienic conditions that would appal a modern board of health. Ventilation was imperfect when the weather was stormy. Candles were the only illuminants, and these were granted but sparingly to the enlisted men. After nightfall the living spaces were at best in a state of twilight, and for the enjoyment of their pipes the men were allowed to gather only in limited numbers around the smoking lamp in the neighborhood of the ship's galley, as the cooking oven or stove was called.



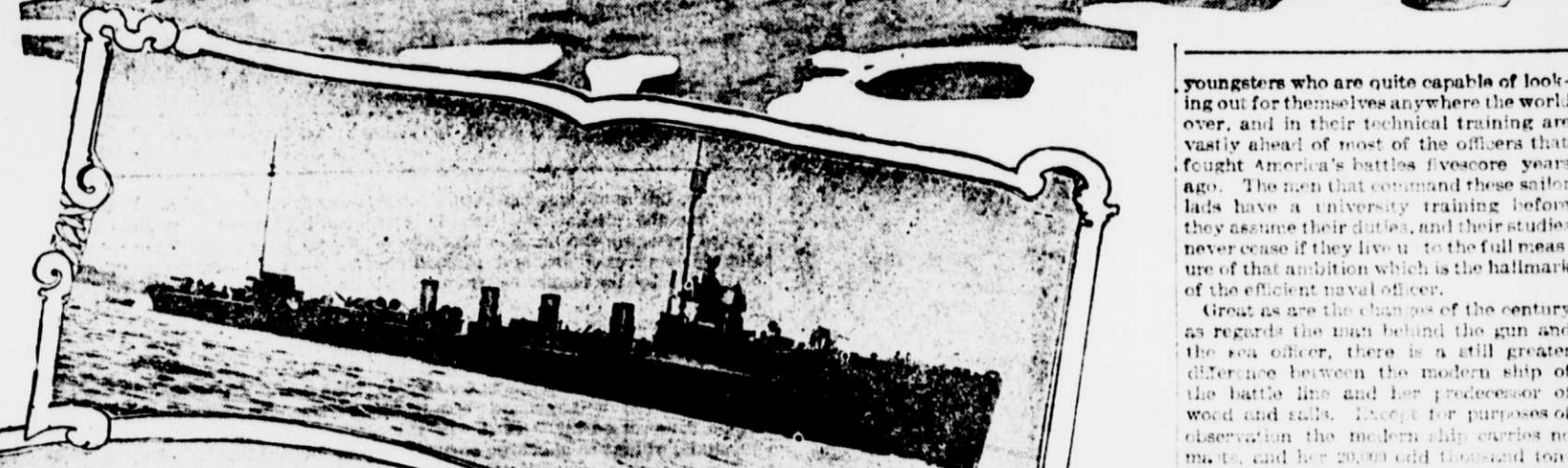
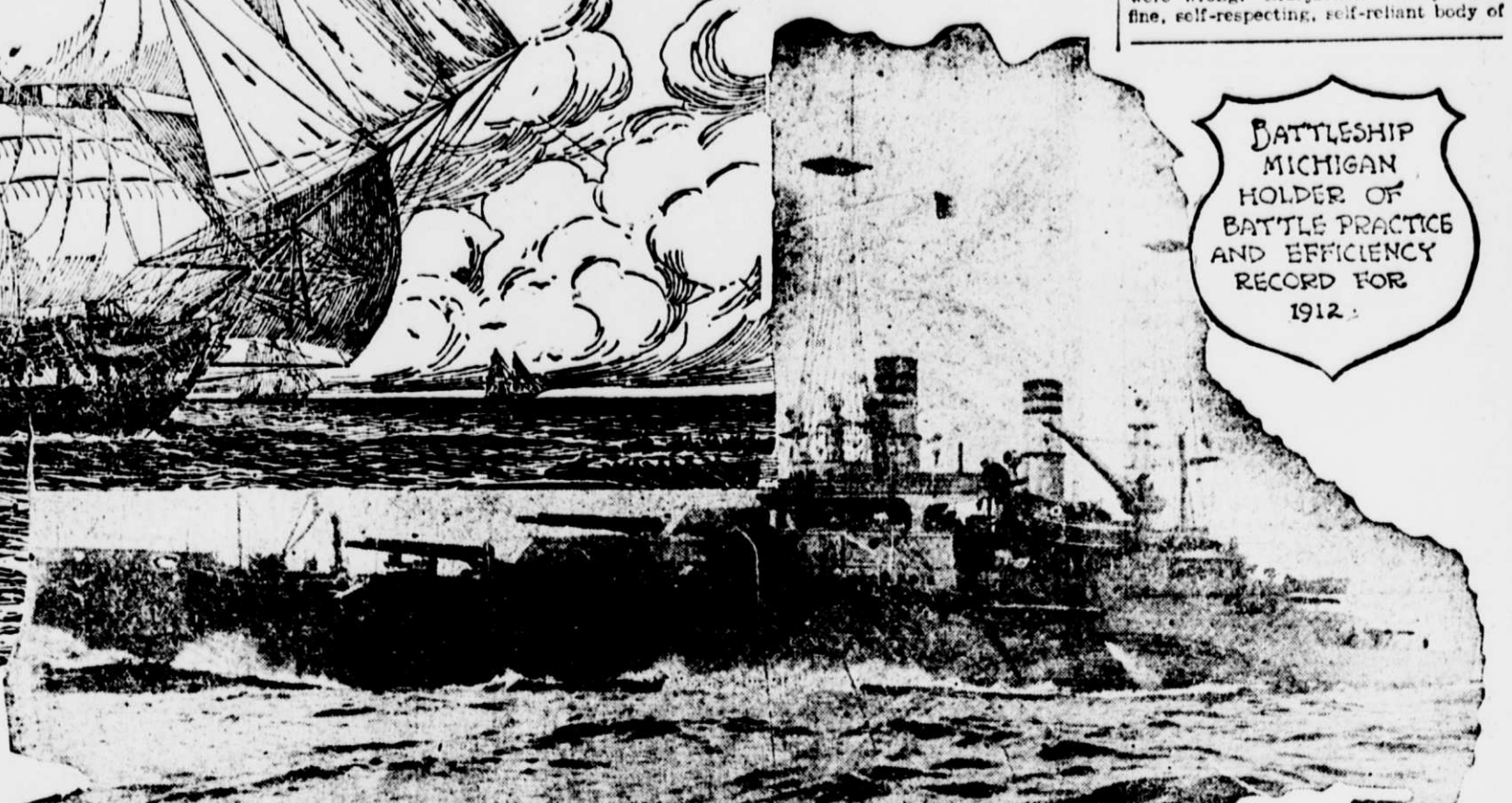
BIGGEST NAVAL RIFLE OF 1912.

LARGEST GUN IN SERVICE DURING THE WAR OF 1812.

sailors not only when in harbor but well nigh continuously, no matter how far duty may call them over sea. This is because flour has supplanted hardtack and refrigerating plants have taken the place of the limited quantities of food with which the old wooden ships left port. No matter where he is lucky drinks the purest of distilled water, and he breathes between decks an abundance of fresh air drawn into the body of the modern man-o-war by means of great mechanical lungs which send their healthful draughts through every part of the vessel's organism.

Whether the season be that of summer or winter, the fighting man afloat to-day can bathe in either cold or hot water as his desire prompts, and the watchful surgeon now is looking for germs with a microscope where his professional brother of 1812 depended upon his unaided eye and his sense of smell to tell him when things were wrong. Bluejackets to-day are a fine, self-respecting, self-reliant body of

BATTLESHIP MICHIGAN HOLDER OF BATTLE PRACTICE AND EFFICIENCY RECORD FOR 1912.



TORPEDO-BOAT DESTROYER, AN IMPORTANT PART OF THE MODERN NAVY.

Discipline was emphasized a century ago by whipping, but not more than a dozen lashes of the colt were permitted on any account at one punishment. With the master at arms or a husky ship's corporal laying on those strokes, a dozen were calculated to answer full well. Another punishment was confinement in the "brig" and "sweatbox," where even the most obstinate offender could be brought to submission.

The naval chaplain, apart from reading the prayers and performing all funeral ceremonies and serving as secretary to the commodore, played the part of schoolmaster to midshipmen and volunteers, instructing them in "writing, arithmetic and navigation and in whatever may contribute to render them proficient." Whatever else the young sea officer in those days learned came to him through practical experience and many hard knocks.

Such were the men that fought and won battles on the high seas for the United States a century ago and such, too, were the ships and the military facilities at their disposal. In 1812, when the war began, the navy contained a dozen ranking officers of the grade of Captain and the total commissioned grades numbered about 500. There were not quite 3,000 seamen and the marines had a corps strength of 1,500, including officers and the rank and file.

Modern Naval Wonders.

A tremendous contrast is afforded by the state of the navy to-day. The force of officers, seamen and marines exceeds 60,000 persons. Both the officer and the enlisted man reflect the intellectual betterment of the naval calling. Humiliating punishments have substantially disappeared. The sailor now lives better than a flag officer a hundred years ago. In place of the tallow dip he has the widespread glow of hundreds of electric lights.

No silverware was supplied a century ago to a Captain or a flag officer, while now both the Government and patriotic bodies help to make the modern naval skipper's table a thing of beauty with its polished plate. Hot bread and fresh meats and vegetables are served to-day to

youngsters who are quite capable of looking out for themselves anywhere the world over, and in their technical training are vastly ahead of most of the officers that fought America's battles five score years ago. The men that command these sailor lads have a university training before they assume their duties, and their studies never cease if they live up to the full measure of that ambition which is the hallmark of the efficient naval officer.

Great as are the changes of the century as regards the man behind the gun and the sea officer, there is a still greater difference between the modern ship of the battle line and her predecessor of wood and sails. Except for purposes of observation the modern ship carries no masts, and her 20,000 odd tons of steel and built-in machinery upon troubled waters which would have made the old Constitution reel violently. To-day the dreadnought goes forward on at full speed against wind and wave. Where a ship of war a century back, just the faintest breeze of wind at a moderate stage of sea indicates the over pressure in the thrumming boilers below the waterline—bavily hinting of the many hundred-fold horsepower pent up in those great steel cauldrons, but this floating veil of steam does not suggest the scores of mechanical auxiliaries which draw their energizing force from the boilers and do varied service throughout the complex internal setup of the fighting ship of the present.

Formidable New Weapons.

Wooden walls have given way to bulwarks of steel—steel that is glass hardened until it is capable of resisting the bite of the hardest drill, and it is utterly impossible to draw a defensive comparison between the thick layers of oak which used to keep out an enemy's shot and the inches of toughened steel which are curiously plastic against the impact of the latest type of armor piercing projectiles.

And what of the modern big naval rifles? In the naval regulations a century ago the guns of such denominations as 18, 24 and 32 pounders were spoken of as great guns, and they were substantially useless beyond a mile's range. Now there are rifles weighing from 56 to 63 tons, capable of firing 12-inch and 14-inch projectiles with velocity enough to go through fifteen inches of hardened steel at a range of five and two-thirds miles, and those guns can be fired with a precision undreamed of in the days of 1812. Instead of waiting for the dip of the sea to bring them to bear upon the enemy, they can be kept continually covering the target as far as their telescopic sights and the distant horizon will permit.

The sight of the gunner is no longer obscured by a dense cloud of smoke. There is a momentary haze of "glowing flame and then the path is clear for another volley. But the gun is not the only weapon now at the disposal of the battling ship of the line. From under water tubes the Ironsides of to-day can launch at her foe great mechanical fish carrying in their wicked heads a charge of a couple of hundred pounds of gunpowder—something unknown to the ordinance officer five score years ago.

Most of this naval progress has been made in less than half a century, and the achievement may properly cause speculation as to what will be the nature and the extent of American battle fleets at the end of the hundred years to come.

TYPICAL SUBMARINE BOAT. SOMETHING THE NAVY DID NOT HAVE IN 1812.